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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,279	01/09/2007	Takayuki Kondo	200380-9054	9404

1131 7590 07/07/2009

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EXAMINER	
YUN, EUGENE	
ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
07/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,279	KONDO, TAKAYUKI	
	Examiner	Art Unit	
	EUGENE YUN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3-6, 8-11, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudrapatna (U.S. Pub. No. 2004/0092233 A1) and Chen (US 7,443,816) and further in view of Anim-Appiah et al. (US 7,295,517).

Referring to claim 1, Rudrapatna discloses a mobile communication system in which variable rate transmission is performed over a downlink radio channel (see title, abstract, para[009], [0015]) among a base station control apparatus (20 of fig.1), a radio base station (14 of fig.1), and a mobile station (16 of fig.1), the radio base station (14 of fig.1) comprising:

(i.e. demultiplexer 44, determine and provide transmission information rate according to received power control rate command from the wireless terminal unit (WTU) i.e. mobile unit)

Rudrapatna does not teach a transmission rate determining part for determining a transmission rate in accordance with a size of transmission data to the mobile station. Chen teaches a transmission rate determining part for determining a transmission rate in accordance with a size of transmission data to the mobile station (see col. 3, lines 5-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to provide the teachings of Chen to said device of Rudrapatna in order to eliminate unnecessary reductions in transmission time between base station and mobile station.

The combination of Rudrapatna and Chen does not teach a transmission power changing part for changing a transmission power of the transmission data in accordance with a predicted error correction gain difference depending on the determined transmission rate. Anim-Appiah teaches a transmission power changing part for changing a transmission power of the transmission data (see col. 14, lines 26-40 where the gain set module is the transmission changing part) in accordance with a predicted error correction gain difference depending on the determined transmission rate (see col. 14, lines 44-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Anim-Appiah to the modified device of Rudrapatna and Chen in order to provide faster estimations of error which will speed up the adjustments of transmission power.

Claims 6 10, and 16 have similar limitations as claim 1.

Referring to Claims 3 and 13, Chen further discloses variable rate (rate increment / decrement) control is performed by setting (i.e. incrementing) and setting (i.e. attaching) rate information by the demultiplexer specifying a transmission rate by each transmission frame in accordance with the transmission data size which is obtained from the mobile station among the base station control apparatus, the radio base station and the mobile station (see col. 1, lines 46-54).

Referring to Claims 4 and 14, Chen further discloses the mobile station includes a transmission rate determining part for estimating a transmission rate from a power distribution of a received signal from base station (see col.59, lines 49-60).

Referring to Claim 5, Rudrapatna further discloses the communication system is a CDMA (Code Division Multiple Access) radio network in which variable rate transmission is performed over a downlink channel (see fig. 1,2,3 and para [0014],[0015]).

Referring to Claim 8, Rudrapatna further discloses the radio base station (14 of fig. 2) further comprising:

a transmission frame producing part (44 of fig.2) for encoding by the encoder (32 of fig.2) the transmission data into a transmission frame and a transmitting part (38 of fig. 2) for transmitting the determined transmission rate and the encoded transmission frame in accordance with the determined transmission power (see fig. 1,2 and para [0019],[0022],[0023],[0025]).

Referring to Claim 9, Rudrapatna further discloses the communication system is a CDMA (Code Division Multiple Access) radio network in which variable rate transmission is performed over a downlink channel (see fig. 1,2,3 and para[0014],[0015]).

Referring to Claim 11, Chen also teaches the step of determining the transmission power carried out with reference to one or more tables prepared in advance that show the relations among the transmission data size, the error correction gain difference, and a change amount of the transmission power (see table in fig. 4).

Referring to Claim 15, Rudrapatna further discloses the communication system is a CDMA (Code Division Multiple Access) radio network in which variable rate transmission is performed over a downlink channel (see fig. 1,2,3 and para[0014],[0015]).

3. Claims 2, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudrapatna, Chen, and Anim-Appiah and further in view of Tsien et al. (US 7,328,037).

Referring to Claims 2, 7, and 12, Rudrapatna does not teach the transmission power is reducing when the transmission rate is large, and transmission power is increasing when the transmission rate is small. Tsien teaches the transmission power is reducing when the transmission rate is large (see ABSTRACT), and transmission power is increasing when the transmission rate is small (see col. 5, lines 55-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Tsien to the modified device of Rudrapatna, Chen, and Anim-Appiah in order to mitigate weak transmission signal.

Response to Arguments

4. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUGENE YUN whose telephone number is (571)272-7860. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571)272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eugene Yun
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